

SAILING INTO TROUBLED WATERS: PREDICTING PIRACY OFF AFRICA

BY

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USAWC STRATEGY RESEARCH PROJECT

SAILING INTO TROUBLED WATERS: PREDICTING PIRACY OFF AFRICA

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ABSTRACT

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This paper addresses several critical issues related to African piracy including: (1) risk factors that promote piracy, (2) future hotspots for piratical behavior, and (3) the intent of pirates once cargo, vessel and crew are commandeered. Findings suggest that while the Northern and Southern African coasts do not appear to be a high risk area for future piracy, Eastern Africa remains a high threat area primarily due to Somalia. On the opposite coast, Western Africa will likely continue to experience some degree of piracy primarily in Cameroon and the Democratic Republic of Congo, but at a manageable level consistent with current trends. The Northwestern region of the continent however, appears to pose the highest risk for piracy, including the countries of Cote d'Ivoire, Guinea, Liberia and Nigeria. Recommendations regarding the strategic role for the U.S. Navy in helping curtail piracy off the continent of Africa are offered.

SAILING INTO TROUBLED WATERS: PREDICTING PIRACY OFF AFRICA

For centuries piracy has been an occupational hazard for seamen navigating the waters off the coast of Africa. As early as the 16th century Africa served as a hub for pirate activity, preying upon the cargo and crew of merchant vessels transiting nearby shipping routes. Over the centuries numerous advances in navigation and communication have helped make seafaring safer. However, these technological advances also benefited pirates in many respects. Today's ships are capable of carrying significantly larger payloads with fewer crewmembers, making them even more lucrative catches and vulnerable targets for modern day pirates.

Piracy has many historical roots within the continent of Africa. Over 500 years ago the Barbary States of Northern Africa (i.e., Algiers, Libya, Tunisia) provided operational bases for pirates raiding merchant vessels transiting the Mediterranean. Over the years the threat of these pirate activities was so detrimental to United States (U.S.) trade that in 1795 President George Washington signed a treaty agreeing to pay a tribute of over \$1 million to the Barbary pirates in exchange for safe passage of U.S. flagged vessels.¹ This maritime threat to our nation's trade did not end until 1801 when the U.S. Navy and Marine Corps attacked pirate safe havens in Tripoli during the Barbary Wars.²

Over the last decade piracy has made a resurgence off the coasts of Africa, especially along its Northeastern coast. From January to September of 2010, Somali pirates alone were responsible for 127 attacks in the Gulf of Aden and wider Indian Ocean area, 682 crew were held hostage, 12 injured and 1 killed.³ As of December 31st Somali pirates were holding 25 vessels and 601 crewmembers for ransom, and just

recently killed 4 Americans after hijacking their private yacht.⁴ Hence, while sea travel has continued to become safer throughout the centuries, the threats and dangers of piracy on the high seas are as real for mariners today as it was for their ancestors.

Piracy has its roots in ancient times ever since civilizations first used maritime vessels to transport goods between neighboring states. Consequently, the law of piracy is regarded as one of the oldest branches of international law with written legal references dating back over a millennium.⁵ Today, the United Nations (U.N.) Convention on Law of the Sea (LOS) defines piracy as:

...any illegal act of violence or detention, or any act of depredation, committed for private ends by the crew or the passengers of a private ship or a private aircraft, and directed to: (i) on the high seas, against another ship or aircraft, or against persons or property on board such ship or aircraft; (ii) against a ship, aircraft, persons or property in a place outside the jurisdiction of any State.⁶

Given the inherent threat and associated dangers of piracy, it is incumbent upon any naval vessel regardless of nationality to render aid to maritime ships under attack outside of a country's territorial waters (12 nm)⁷ on the high seas. This has become problematic off Africa where many nations lack Coast Guard or Naval assets necessary to counter piracy even within their own coastal waters. Commenting on this dilemma U.S. Secretary of Defense Robert Gates recently stated "...the inability of many states to police themselves effectively or to work with their neighbors to ensure regional security represents a challenge to the international system."⁸ In response to those nations unable to protect their own territorial waters, the U.N. recently passed a series of Security Council resolutions (i.e., 1816, 1838, 1841, 1844, 1846, and 1851) to help fight piracy and armed robbery specifically within Somalia given the high rate of pirate activity, and the country's inability to secure its own waters.⁹

Historically when countries are confronted with piracy that threatens international trade, they look towards nations with powerful navies to intercede. Today the U.S. has successfully established itself as the most powerful navy in the world. Hence, it is not surprising that the international community would turn to the U.S. for assistance in battling piracy. Rampant piracy threatens international commerce, a domain wherein the U.S. is a major player. The U.S. Navy's core capabilities include providing forward presence, power projection, deterrence, humanitarian assistance/disaster relief, sea control and maritime security. As piracy operations are embedded within these latter two mission sets, this tasking of the U.S. Navy seems appropriate.

Complicating matters though is the vast size of the African continent, a landmass nearly three times the size of United States. Hence, it is critical to identify those countries and regions that have the greatest risk for experiencing piratical activities. Given the limited naval assets available to fight piracy, protecting Africa's millions of square miles of ocean from piracy would be impossible if unable to concentrate U.S. forces in high threat areas. Optimal placement of naval assets is essential given that once under attack most ships have less than 30 minutes from the first sighting to boarding.¹⁰

This paper addresses several critical issues related to African piracy, including identifying the: (1) risk factors that promote piracy, (2) future hotspots for piratical behavior, and (3) intent of pirates once cargo, vessel and crew are commandeered. Recommendations regarding the strategic role for the U.S. Navy to help curtail African piracy are offered.

Country Risk Factors that Increase the Risk of Piracy

Numerous risk factors are believed to contribute to piracy occurring within a nation. This manuscript addresses eight critical variables that promote piracy, including: (a) access to maritime shipping routes, (b) proximity to maritime choke points, (c) degree to which a nation is characterized as a failed state, (d) length of coastline, (e) naval assets available to combat piracy, (f) population's access to small arms and light weapons (g) youth bulge, and (h) historical pirate trends. Table 1 below assesses each of the thirty-three coastal African countries across each of these variables which are weighted according to risk factor. The scale used for each variable is presented at the top of each column, with higher values representing an increased risk of piracy occurring. Risk of future piracy was calculated based on their total scores across each of the eight variables, and categorized as either: (a) high risk 14 – 20 points, (b) moderate risk 11-13 points, or (c) low risk < 11 points. A detailed discussion of each risk factor is provided for both country and geographical region.

<i>Country</i>	<i>Shipping Access</i>	<i>Choke Points</i>	<i>Failed State</i>	<i>Coastline</i>	<i>Naval Assets</i>	<i>SALWs</i>	<i>Youth Bulge</i>	<i>Piracy</i>	<i>Risk Score</i>
Weight Factor	Direct (3)	Yes (1)	Critical = 4	> 1500km (3)	Limited (3)	Yes (1)	Yes (1)	High (4)	15-20 High
	Mod (1.5)	No (0)	In Danger=2	501-1499 km (1.5)	Min (1.5)	No (0)	No (0)	Mod (2)	11-15 Mod
	Limited (0)		Borderline = 0	< 500 (0)	Adequate (0)			None (0)	< 11 Low
NORTHERN AFRICA									
Algeria	Direct (3)	No (0)	In Danger (2)	998 km (1.5)	36 (1.5)	Yes (1)	33% (1)	N (0)	10 Low
Egypt	Direct (3)	No (0)	In Danger (2)	2450 km (3)	144 (0)	No (0)	31% (1)	Mod (2)	11 Mod
Libya	Direct (3)	No (0)	Borderline (0)	1770 km(3)	24 (1.5)	No (0)	31% (1)	N (0)	8.5 Low

<i>Morocco</i>	<i>Direct (3)</i>	<i>Yes(1)</i>	<i>In Danger (2)</i>	<i>1835 km(3)</i>	<i>47 (0)</i>	<i>No (0)</i>	<i>30% (1)</i>	<i>Mod (2)</i>	<i>12</i> <i>Mod</i>
<i>Sudan</i>	<i>Direct (3)</i>	<i>No (0)</i>	<i>Critical (4)</i>	<i>853 km(1.5)</i>	<i>16 (1.5)</i>	<i>No (0)</i>	<i>32% (1)</i>	<i>N (0)</i>	<i>11</i> <i>Mod</i>
<i>Tunisia</i>	<i>Direct (3)</i>	<i>No (0)</i>	<i>Borderline (0)</i>	<i>1148 km (1.5)</i>	<i>34 (1.5)</i>	<i>No (0)</i>	<i>30% (1)</i>	<i>Mod (2)</i>	<i>9</i> <i>Low</i>
<i>West Sahara</i>	<i>Direct (3)</i>	<i>No (0)</i>	<i>Critical (4)</i>	<i>1110 km (1.5)</i>	<i>0 (3)</i>	<i>No (0)</i>	<i>30% (1)</i>	<i>N (0)</i>	<i>12.5</i> <i>Mod</i>
SOUTHERN AFRICA									
<i>Mozambique</i>	<i>Limited (0)</i>	<i>No (0)</i>	<i>In Danger (2)</i>	<i>2470 km(3)</i>	<i>2 (3)</i>	<i>No (0)</i>	<i>33% (1)</i>	<i>Mod (2)</i>	<i>11</i> <i>Mod</i>
<i>Namibia</i>	<i>Mod (1.5)</i>	<i>No (0)</i>	<i>Borderline (0)</i>	<i>1572 km(3)</i>	<i>13 (3)</i>	<i>No (0)</i>	<i>36% (1)</i>	<i>N (0)</i>	<i>8.5</i> <i>Low</i>
<i>South Africa</i>	<i>Direct (3)</i>	<i>No (0)</i>	<i>Borderline (0)</i>	<i>2798 km (3)</i>	<i>30 (1.5)</i>	<i>No (0)</i>	<i>31% (1)</i>	<i>N (0)</i>	<i>8.5</i> <i>Low</i>
EASTERN AFRICA									
<i>Djibouti</i>	<i>Direct (3)</i>	<i>Yes(1)</i>	<i>In Danger (2)</i>	<i>314 km(0)</i>	<i>11 (1.5)</i>	<i>No (0)</i>	<i>33% (1)</i>	<i>N (0)</i>	<i>8.5</i> <i>Low</i>
<i>Eritrea</i>	<i>Direct (3)</i>	<i>Yes(1)</i>	<i>In Danger (2)</i>	<i>2234 km(3)</i>	<i>24 (1.5)</i>	<i>No (0)</i>	<i>33% (1)</i>	<i>Mod (2)</i>	<i>13.5</i> <i>Mod</i>
<i>Kenya</i>	<i>Limited (0)</i>	<i>No (0)</i>	<i>In Danger (2)</i>	<i>536 km(1.5)</i>	<i>13 (1.5)</i>	<i>No (0)</i>	<i>35% (1)</i>	<i>Mod (2)</i>	<i>8</i> <i>Low</i>
<i>Somalia</i>	<i>Direct (3)</i>	<i>Yes(1)</i>	<i>Critical (4)</i>	<i>3025 km(3)</i>	<i>0 (3)</i>	<i>Yes (1)</i>	<i>30% (1)</i>	<i>High (4)</i>	<i>29</i> <i>High</i>
<i>Tanzania</i>	<i>Limited (0)</i>	<i>No (0)</i>	<i>In Danger (2)</i>	<i>1424 km(1.5)</i>	<i>8 (3)</i>	<i>No (0)</i>	<i>32% (1)</i>	<i>Mod (2)</i>	<i>9.5</i> <i>Low</i>
NORTHWESTERN AFRICA									
<i>Benin</i>	<i>Direct (3)</i>	<i>No (0)</i>	<i>Borderline (0)</i>	<i>121 km(0)</i>	<i>7 (1.5)</i>	<i>No (0)</i>	<i>33% (1)</i>	<i>N (0)</i>	<i>5.5</i> <i>Low</i>
<i>Cote d'Ivoire</i>	<i>Direct (3)</i>	<i>No (0)</i>	<i>Critical (4)</i>	<i>515 km(1.5)</i>	<i>1 (3)</i>	<i>Yes (1)</i>	<i>32% (1)</i>	<i>Mod (2)</i>	<i>15.5</i> <i>High</i>
<i>Gambia</i>	<i>Direct (3)</i>	<i>No (0)</i>	<i>In Danger (2)</i>	<i>80 km (0)</i>	<i>9 (1.5)</i>	<i>No (0)</i>	<i>31% (1)</i>	<i>N (0)</i>	<i>7.5</i> <i>Low</i>
<i>Ghana</i>	<i>Direct (3)</i>	<i>No (0)</i>	<i>Borderline (0)</i>	<i>539 km (1.5)</i>	<i>5 (1.5)</i>	<i>No (0)</i>	<i>33% (1)</i>	<i>Mod (2)</i>	<i>9</i> <i>Low</i>
<i>Guinea</i>	<i>Direct (3)</i>	<i>No (0)</i>	<i>Critical (4)</i>	<i>320 km (0)</i>	<i>2 (3)</i>	<i>Yes (1)</i>	<i>32% (1)</i>	<i>Mod (2)</i>	<i>14</i> <i>Mod</i>
<i>Guinea Bissau</i>	<i>Direct (3)</i>	<i>No (0)</i>	<i>In Danger (2)</i>	<i>350 km(0)</i>	<i>4 (3)</i>	<i>No (0)</i>	<i>32% (1)</i>	<i>Mod (2)</i>	<i>11</i> <i>Mod</i>
<i>Liberia</i>	<i>Direct (3)</i>	<i>No (0)</i>	<i>In Danger (2)</i>	<i>579 km(1.5)</i>	<i>3 (3)</i>	<i>Yes (1)</i>	<i>33%(1)</i>	<i>Mod (2)</i>	<i>13.5</i> <i>Mod</i>
<i>Mauritania</i>	<i>Direct (3)</i>	<i>No (0)</i>	<i>In Danger (2)</i>	<i>754 km(1.5)</i>	<i>9 (1.5)</i>	<i>No (0)</i>	<i>24% (0)</i>	<i>N (0)</i>	<i>8</i> <i>Low</i>
<i>Nigeria</i>	<i>Mod (1.5)</i>	<i>No (0)</i>	<i>In Danger (2)</i>	<i>853 km(1.5)</i>	<i>15 (1.5)</i>	<i>Yes (1)</i>	<i>34% (1)</i>	<i>High (4)</i>	<i>12.5</i> <i>Mod</i>
<i>Senegal</i>	<i>Direct (3)</i>	<i>No (0)</i>	<i>Borderline (0)</i>	<i>531 km(1.5)</i>	<i>10 (3)</i>	<i>No (0)</i>	<i>34%(1)</i>	<i>N (0)</i>	<i>8.5</i> <i>Low</i>

<i>Sierra Leone</i>	<i>Direct (3)</i>	<i>No (0)</i>	<i>In Danger (2)</i>	<i>402 km(0)</i>	<i>1 (3)</i>	<i>Yes (1)</i>	<i>31% (1)</i>	<i>N (0)</i>	10 Low
<i>Togo</i>	<i>Direct (3)</i>	<i>No (0)</i>	<i>In Danger (2)</i>	<i>56 km(0)</i>	<i>4 (1.5)</i>	<i>Yes (1)</i>	<i>33% (1)</i>	<i>Mod (2)</i>	10.5 Low
WESTERN AFRICA									
<i>Angola</i>	<i>Limited (0)</i>	<i>No (0)</i>	<i>In Danger (2)</i>	<i>1600 km(3)</i>	<i>7 (3)</i>	<i>Yes (2)</i>	<i>33% (1)</i>	<i>Y (2)</i>	13 Mod
<i>Cameroon</i>	<i>Mod (1.5)</i>	<i>No (0)</i>	<i>In Danger (2)</i>	<i>402 km(0)</i>	<i>14 (1.5)</i>	<i>No (0)</i>	<i>34% (1)</i>	<i>Y (2)</i>	8 Low
<i>Dem Rep Congo</i>	<i>Limited (0)</i>	<i>No (0)</i>	<i>Critical (4)</i>	<i>37 km(0)</i>	<i>1 (3)</i>	<i>Yes (2)</i>	<i>33% (1)</i>	<i>Y (2)</i>	12 Mod
<i>Equatorial Guinea</i>	<i>Mod (1.5)</i>	<i>No (0)</i>	<i>In Danger (2)</i>	<i>296 km(0)</i>	<i>5 (1.5)</i>	<i>No (0)</i>	<i>33% (1)</i>	<i>Y (2)</i>	8 Low
<i>Gabon</i>	<i>Mod (1.5)</i>	<i>No (0)</i>	<i>Borderline (0)</i>	<i>885 km(1.5)</i>	<i>12 (1.5)</i>	<i>No (0)</i>	<i>34% (1)</i>	<i>N (0)</i>	5.5 Low
<i>Rep of the Congo</i>	<i>Limited (0)</i>	<i>No (0)</i>	<i>In Danger (2)</i>	<i>169 km(0)</i>	<i>8 (1.5)</i>	<i>No (0)</i>	<i>33% (1)</i>	<i>Y (2)</i>	6.5 Low

Table 1. Risk Factors for Piracy.¹¹

Access to Shipping Routes. Perhaps one of the most important prerequisites for piracy to occur is for a nation to be proximate to major maritime shipping routes. Current estimates are that over 90% of internationally traded goods are transported by sea, with most of these goods flowing through international maritime shipping routes. These shipping routes highlighted in Figure 1 below are similar to commercial airways in many respects, in that they are typically only several miles in width and carry the majority of the world's trade. The two primary shipping routes around Africa are by either transiting through the Suez Canal, or circumnavigating the continent's western coastline around the Cape of Good Hope. As highlighted in Table 1, only 22 of the 33 African coastal nations are situated proximate to major maritime shipping lanes.¹² Countries with direct access to shipping routes by region include to the North (Algeria, Egypt, Libya, Morocco, Sudan, Tunisia, and Western Sahara), Northwest (Benin, Cote D'Ivoire, Gambia, Ghana, Guinea, Guinea Bissau, Liberia, Mauritania, Senegal, Sierra

Leone, and Togo), West (none), South (South Africa) and East (Djibouti, Eritrea, and Somalia).

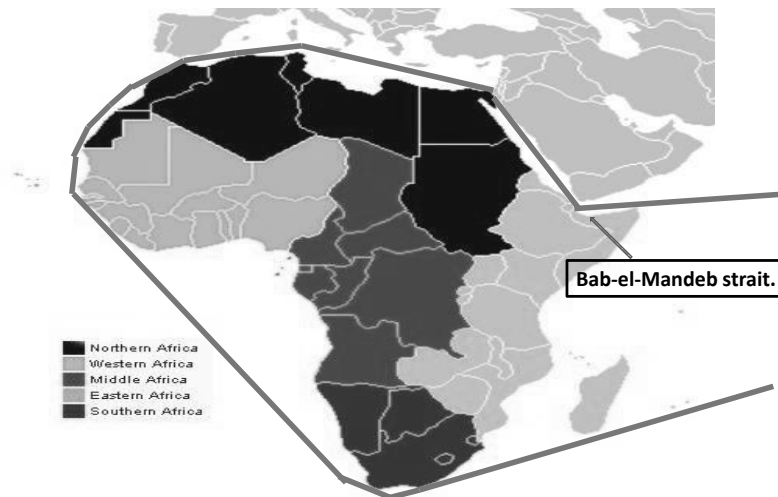


Figure 1. Geographical Regions and International Shipping Routes¹³

Choke Points. A second important risk factor that abets piratical activity is a natural chokepoint. Chokepoints are locations within shipping routes that cannot be easily bypassed and naturally limit the ability of a ship to maneuver and transit. Hence, any alternative to navigating through a chokepoint requires the ship to either detour, or use an alternative route, which typically incurs additional financial costs and/or delays.¹⁴ From a pirate's perspective whenever shipping routes are constrained by natural barriers or choke points, vessels become extremely vulnerable given they must typically reduce speed while having limited maneuverability. Figure 1 highlights a natural choke point on the Northeast coast of Africa called the Bab-el-Mandeb strait. This 20 nm wide strait connects the Red Sea to the Gulf of Aden which ships must pass through after transiting the Suez Canal. Each year approximately 20,000 ships and 12% of the

world's petroleum cross through the Gulf of Aden via the Suez Canal, which makes this area an extremely target rich environment for pirates.¹⁵ Countries adjacent to this choke point include Djibouti, Eritrea, and Somalia.

Rerouting ships to bypass this choke point would require sailing around the Western coast of Africa, and that would add an additional 3000 miles and several weeks transit time. Rerouting would result in additional fuel costs estimated at \$3.5 million per year for tankers and \$74.4 million for liner trades.¹⁶ When analyzing this alternative from the perspective of a cost-benefit analysis, it is more cost effective for shipping companies to continue transporting goods through the Suez Canal risking piracy, while incurring higher insurance premiums to cover the increased risk associated with this route. In turn, maritime insurance companies have reaped significant profits by raising insurance premiums (\$10,000 - \$20,000 per trip) for all shipping operations within pirated waters. These premiums have more than offset the costs of actual claims paid out (\$500,000 - \$2 million) for ransoming crew, cargo and vessels, given less than 1% of all shipping is successfully attacked.¹⁷

Risk of Becoming a Failed State. To operate effectively pirates require safe havens in which they can conduct operations with relative impunity, without fear of either military or law enforcement actions. These conditions are typically only afforded within the borders of failing nations which are characterized by lawlessness, where the government cannot adequately police its cities nor patrol its coastal areas. The *2010 Failed State Index* ranks states based on twelve social, economic and political indicators to determine each nation's risk for becoming a failed state. Overall ratings are provided for each country as being either: (a) most stable, (b) borderline, (c) in

danger, or (d) critical of state failure. Of the 33 African coastal nations, only 4 nations are assessed as being “critical” for state failure (Cote d'Ivoire, Democratic Republic of Congo, Somalia, and Sudan), while 19 are assessed as being “in danger”, and 8 other nations were assessed as “borderline”. None of these coastal African nations achieved the highest rankings for being either “stable” or “most stable”.¹⁸

Length of Coastline. Large coastlines also provide extensive opportunities from which pirates can create safe havens and operate more freely. A large coastline also makes patrolling vast spaces of ocean extremely difficult, especially given many African countries have limited naval and Coast Guard assets. In all, 11 nations have relatively small coastlines (< 500 km) that would be relatively easy to patrol, 13 nations have relatively large coastlines (501 km - 1500 km) that would be challenging to patrol, and 9 countries have extremely large coastlines (> 1500 km). Nations with large coastlines include Angola, Egypt, Eritrea, Libya, Mozambique, Morocco, Namibia, Somalia, and South Africa.

Ability to Protect Territorial Waters. Directly related to the size of a nation's coastline, is the number and quality of naval assets the country possesses that enable it to conduct maritime law enforcement operations. Countries with large coastlines and limited naval assets will find it extremely challenging to deter piracy given the vast amount of ocean they need to patrol. However, even nations with a small swath of coastline and limited naval assets will find it all but impossible to patrol their waters adequately. Table 1 provides the total number of Navy Coast Guard and Fishery protection patrol boats each nation has available to police their territorial waters. A total of thirteen (13) countries have either: (a) few or no operational naval units (i.e., Cote d'

Ivoire, Dem Rep of Congo, Guinea, Liberia, Sierra Leone, Somalia, Western Sahara); (b) naval units that are in disrepair (i.e., Guinea Bissau, Senegal); or (c) an inadequate number of naval assets given the size of the country's coastline (i.e., Angola, Mozambique, Namibia, Tanzania).

A nation's inability to protect its exclusive economic zone or EEZ¹⁹ (200 nm from coastline) can also have negative impacts upon its nation's economy. The livelihoods of fishermen across the continent of Africa are being threatened by the depletion of fish stocks by foreign fishing vessels both legally and illegally. Legally, many African nations sell licenses to foreign nations in Europe and Asia for the rights to fish in their waters based on either (a) the number of vessels, (b) amount of fish caught, or (c) both. However, illegal fishing is also conducted within many African nations' waters since many countries lack sufficient Navy or Coast Guard forces to protect their territorial waters. This has had a significant impact upon local fisherman, and is believed to have drawn many otherwise honest seamen into piracy as a means of survival.

Access to Small Arms and Light Weapons. Researchers have long posited that easy access to large numbers of small arms and light weapons (SALWs) can have deleterious effects on a nation, resulting in a greater incidence of violence, intimidation, criminality and death.²⁰ According to a recent study SALWs have both direct (i.e., fatal & non-fatal injuries) as well as indirect effects (e.g., armed crime, quality of social services, economic activity, investment, social capital, developmental interventions) upon a nation.²¹ While SALW availability to the local populace can readily establish a direct causal relationship to the number of homicides and gunshot wounds reported within a nation, indirect effects such as criminality have a more correlational

relationship. Armed criminality is presumed to be the result of a host of social factors including poverty, economic inequality, social marginalization, and drugs to name but a few. Despite this, researchers have observed that “armed criminality is particularly virulent in societies emerging from conflict and where small arms are widely available.”²² For example, upon the conclusion of fighting in the Democratic Republic of Congo in 2003, it was estimated that there were as many as 80,000 SALWs among the populace. Statistics such as these are especially disheartening given the number of African coastal nations that are either currently experiencing armed conflict or have recently done so, including: Algeria, Angola, Cote d'Ivoire, Democratic Republic of the Congo, Egypt, Guinea, Liberia, Nigeria, Sierra Leone, Somalia, and Togo.²³ Interestingly, over half of these countries are located in the Northwestern region of Africa. Other negative indirect effects SALWs can impact include diminished: (a) access and quality of social services due to increased rates of school and clinic closures, (b) economic activity due to increases in transport/shipping costs, (c) foreign investment, and (e) developmental interventions due to economic losses associated with damaged investments.²⁴

Increasing Youth Bulge. “Armed and angry young men are perhaps the most feared element of any society.”²⁵ Recent estimates by The World Health Organization contend young men between the ages of 15 through 29 commit the most crimes of any age group, accounting for approximately 70,000 – 100,000 homicides each year through the use of firearms alone.²⁶ Demographic Theory posits that countries with disproportionate numbers of young men experience the highest rates of crime and violence. More specifically when the ratio of post adolescent young men to older men reaches a ratio of 40:100 or approximately 30%, violent conflict tends to ensue within a

society.²⁷ These risk factors are exacerbated if the country is experiencing high levels of unemployment given joblessness among young men is traditionally greater than any other age group, with estimates ranging from three to five times higher than older adult males.²⁸ Aggravating matters further is that researchers allege that young men engaging in armed conflict within many African nations has begun to serve as a societal rite of passage into manhood.²⁹ Young men are increasingly viewing violence and criminal activity as a means of obtaining wealth and status within society, especially in countries where there are limited opportunities to do so by other means. This was recently observed in Sierra Leone under the guidance of the Revolutionary United Front (RUF) during “Operation No Living Thing” in which the RUF used young men and child soldiers for the invasion of Freetown.³⁰ Interestingly, every African coastal nation with the exception of Mauritania is currently experiencing a youth bulge phenomena, with over a third of the male population between the ages of 10 through 24.³¹

Recent Trends of Piracy. Piracy or for that nature most criminal activity does not occur evenly across geographical areas. It is typically absent in certain areas and clusters in others. Historical data provides an opportunity to identify hot spots, trends, and changes in level of activity.³² Hence, an important aspect of predicting future criminal behavior is to look at where such events have taken place in the past. The International Chamber of Commerce (ICC) International Maritime Bureau tracks all piracy and armed robbery against ships across the globe.

Table 1 depicts levels of piratical activities by country for the period 2005 through 2010. In all, 11 African coastal nations did not experience any pirate activity over the last six years while 16 countries showed very low levels. However, 2 countries (Nigeria,

Somalia) experienced extremely high levels of piracy, and 4 countries (Cameroon, Cote d'Ivoire, Dem Rep of Congo, Guinea) demonstrated moderate levels of piracy³³ Figure 2 below shows longitudinal data for those countries demonstrating historically high or moderate rates of piratical behavior over the past six years as reported by the ICC.

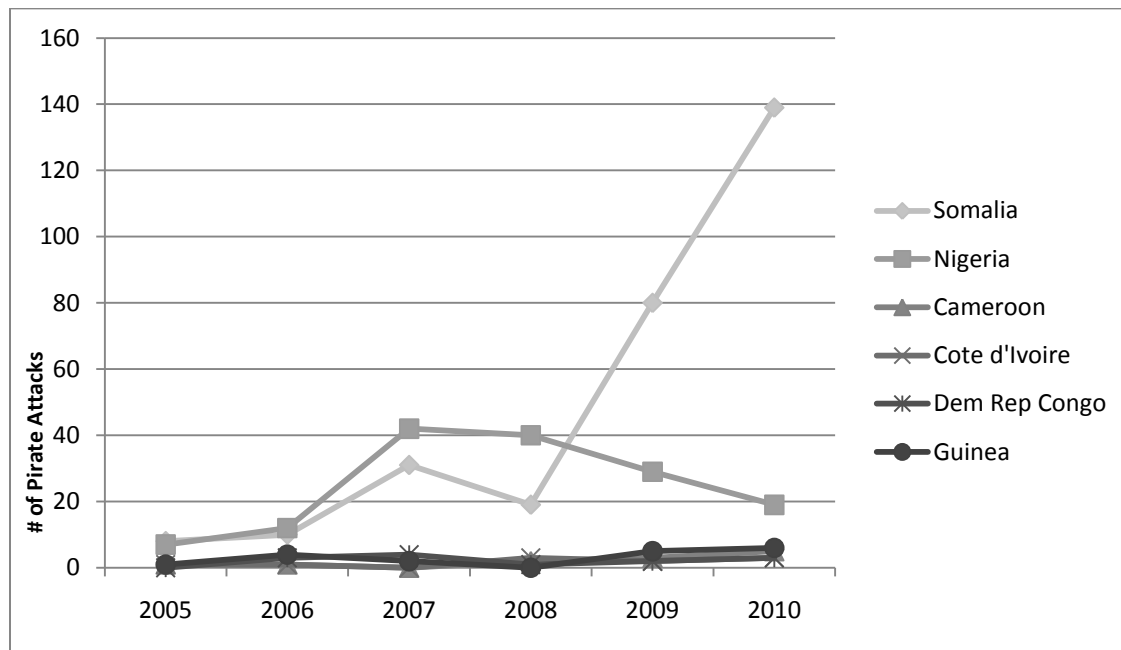


Figure 2. Countries with Historically High Level of Pirate Attacks³⁴

When analyzing Africa by geographical region, none of the countries in the South reported any pirate activity over the past six years. The second strongest region was Northern Africa which had only several incidents of pirating reported across the entire region, and showed a slight decrease in trend over the past several years. While East Africa is currently experiencing high levels of piracy, the situation appears to be moving in a positive direction across the region with the exception of Somalia. Both Kenya and Tanzania are showing a decreasing trend in pirate activities over the past several years. Somalia, however, continues to show a significant increase in both level and trend of piratical activity with 139 reported incidents last year alone. Somali pirates are now

extending their reach by conducting operations from mother ships as far as 1000 km from shore. On the opposite side of the continent, the Northwestern region is also experiencing high levels of pirate activity. Nigeria which has been the greatest concern over the past several years has recently shown a significant reduction in both level and trend of pirate activity. Unfortunately though, it appears the majority of the other countries in the Northwest region have begun engaging in piracy, with increasing trends observed in both Cote d'Ivoire and Guinea. Similarly, the Western region of Africa has also demonstrated moderate levels of piratical behavior, with Cameroon and the Democratic Republic of Congo showing the most consistent levels of activity within the region.

Predicting Piracy Off Africa

A risk analysis for piracy off Africa was conducted for each country and geographical region using each of the eight variables or risk factors previously discussed. Table 1 displays how each variable was weighted in regard to its risk factor, with higher values representing an increased risk of piracy occurring. The risk for future piracy is presented by country and geographical region.

Northern Africa. Currently, North Africa does not appear to be a high risk area for future piracy with none of these countries assessed as being high risk. While the region does experience occasional incidents of piracy, most of the nations in this region are capable of providing security for their own territorial waters. In addition, these nations border the Mediterranean whose waters can be readily protected by the navies of other countries, including U.S. Naval forces stationed in Europe.

Eastern Africa. Eastern Africa remains a high threat area for piracy given the current status of Somalia. Not only did Somalia recently receive the highest ranking on the World Failed State Index, it has consistently demonstrated the highest levels of piracy on the continent. On the positive side though, the Northeastern area of Somalia created a separate state called Puntland in 1998. Puntland now encompasses approximately one third of the population and geographic land mass of Somalia, and has demonstrated the highest levels of government and order within the nation. Puntland's growing security forces have successfully demonstrated the ability to patrol their waterways and arrest pirates, and with international assistance have begun developing a new naval base at Bandar Siyada to train new military recruits. These efforts are in addition to those of Combined Task Force 151 (CTF-151) which is comprised of twenty nations operating out of neighboring Djibouti that has been conducting counterpiracy operations in the Red Sea, Arabian Ocean, Indian Ocean, Gulf of Oman, and Gulf of Aden since 2009.³⁵ Together these combined efforts show considerable promise for stabilizing the region.

Northwestern Africa. While Nigeria is the only country with historically high rates of piracy, the Northwestern region as a whole appears to be at the highest risk for becoming the next piracy hot spot on the African continent. The Northwest region has a cluster of five countries which border each other (Cote d'Ivoire, Guinea, Guinea Bissau, Liberia and Sierra Leone) that have numerous conditions that precipitate piracy including: (a) direct access to shipping, (b) at-risk of becoming a failed state, (c) recently experienced conflict with a large number of SALWs available, (d) limited maritime law enforcement capabilities, (e) large adolescent male population, and (e) currently

experiencing increasing levels of piracy. Cote d'Ivoire (Ivory Coast) is the only African nation other than Somalia to be categorized as a high risk threat for piracy.

Western Africa. While Western Africa does experience some degree of piracy, it does not appear to be at-risk for high levels of piracy in the near future. The Democratic Republic of Congo (DRC) has displayed the highest levels of piracy in the region and displays a number of risk factors (e.g., critical for becoming a failed state and no substantive naval assets) but has a limited 37 km coast line. Moreover along with the other countries in this region it is located a significant distance from international shipping routes. Hence, while this region is likely to continue experiencing some degree of piracy in the future, it should remain at a manageable level.

Southern Africa. Over the past several years none of the countries in the Southern region have experienced piracy, and it does not appear that this region is likely to become a high risk in the near future. The one country that poses the greatest concern is Mozambique, which has a vast coastline to protect (2470 km) with relatively modest naval assets, if any. However, the major shipping routes bypass its coastline heading to Asia (see Figure 1), and there have only been a handful of piracy incidents reported in this area over the past six years.

Other Trends in African Piracy

The objective of most African pirates is not to capture vessels or cargo for resale, but instead to hold captured crews, cargo and vessels for ransom. Negotiations are typically conducted by a third party who has no direct connection to the pirates.³⁶ According to Stephen Carmel the Senior Vice President of the Maersk Line shipping company, "Somali pirates are a pure hostage for ransom crowd. That means among

other things that the hostages always get released and generally are not horribly mistreated.”³⁷ The recent increase in hostage ransoms paid which have been purported to be in the range of \$7 to \$9.5 million, has made piracy a very profitable business. However, one second order effect of these increased ransom payoffs has been a significant increase in the duration hostages are now being held. In the last year alone, hostages went from being held an average of 55 days in 2009, to 100 days in 2010 in hopes of negotiating larger ransoms.³⁸

While African piracy involves numerous actors, the primary players are the gangs actually conducting the illegal operations. For instance, in Somalia the majority of pirates are affiliated with organized gangs, each of which is typically associated with a particular clan located in a specific geographical locale along the country’s 1,900 mile coastline. While the Hoboyo-Haradhere cartel operating out of El-Huur and El-Gaan is one of the largest gangs (>100 skiffs), there are at least a half dozen other pirate clan based gangs operating from various Somalia seaports, including Eyl, Garard, Bosasso, Ras Asir, Alula Cape and Chismayu.³⁹ However, given the recent large payoffs in ransom by insurance companies, piracy in Africa is likely to draw the interest of transnational criminal organizations. The combinations of dire economic conditions, armed conflicts, state inefficiencies and weak governance have made the African region especially vulnerable to organized crime.⁴⁰ Transnational crime syndicates are currently involved in a wide range of illicit commodities in Africa, including diamonds, human trafficking, narcotics, petroleum, ivory and weapons.⁴¹ Given the limited resources Africa has in combating organized crime, the opportunities for such organizations to exploit cash lucrative opportunities such as piracy is very high. For instance, Africa

currently has only 180 police officers per 100,000 people on the continent, which is approximately half that found in Asia. In addition, police are typically underpaid and susceptible to corruption, creating an inviting atmosphere for organized crime.⁴² All of these conditions make Africa a very lucrative market for transnational organized crime to engage in piracy. In addition, transnational criminal organizations would also benefit in the event insurance companies begin refusing to pay ransoms as they would be more capable of selling the cargo and vessels on the black market. Local clan based gangs do not have the infrastructure to readily market captured commodities.

Recommendations for U.S. Navy Strategic Policy Toward African Piracy

The desired end state for the United States regarding African Piracy should be to ensure that: (a) no U.S. flagged vessels are hijacked while transiting the Suez Canal and the Gulf of Aden, (b) pirate actions in the region do not encumber U.S. commerce, (c) U.S. energy sources (e.g., oil & gas) are not threatened, and, (d) policy implementation costs are minimized. As described by the 2009 Congressional Research Service's Report to Congress, the current U.S. response to piracy can be best described as multifaceted, including (a) multinational information sharing, (b) deterrence requirements for vessels transporting materiel for the Department of Defense, (c) foreign assistance, and (d) counter piracy operations.⁴³ Policy experts have supposedly even considered potential military actions against land based pirate operations. Prior to determining an appropriate U.S. Navy policy towards African piracy though, it is important to determine if it actually threatens U.S. national interests. According to Hans Morgenthau a leading theorists in international politics, there are only two types of national interests, vital and secondary. Vital interests are those that

directly assure a state's security, freedom, independence, protection of its institutions, or enshrinement of its values. Hence, nations should not compromise vital interests and should be willing to wage war when vital interests are threatened. In contrast, secondary interests are typically removed from the nation's borders and represent no threat to sovereignty.⁴⁴ A dilemma that Morgenthau warns of is when secondary interests become popularized by statesmen or public opinion to the point that they become misconstrued and appear to be vital interests.⁴⁵ This can result in military action even though such action is not warranted.

When assessing piracy in relation to U.S. interests, the 2005 U.S. National Maritime Security Strategy emphasizes the importance of maintaining "freedom of the seas." However, the specific discussion of piracy is limited to its capabilities and threats in support of terrorist activities and organizations.⁴⁶ In fact, President Obama's 2010 National Security Strategy states that the U.S. needs to actively pursue four enduring national interests including: (a) security of the U.S., its citizens, allies and partners, (b) prosperity to ensure a strong, innovative, and growing U.S. economy, (c) respect for universal values around the world, and (d) international order advanced by U.S. leadership to promote peace, security, and opportunity through stronger cooperation to meet global challenges.⁴⁷

To date African piracy does not directly threaten any vital U.S. national interests, nor does it have a significant impact on the U.S. economy. In retrospect, less than 2% of our nation's commerce is carried by U.S. flagged ships, and only 13% of our oil imports come from this region of the world.⁴⁸ Given less than 1% of all vessels traveling through these waters are subject to piracy, the actual risk to U.S. interests by African

piracy is extremely low. Even shipping companies have argued that African piracy is not a significant concern to maritime trade. The estimated annual cost of piracy in the region is estimated to be between \$7 and \$12 billion worldwide.⁴⁹ However, from the perspective of the shipping industry this "...represents the value of cargo that flows through that area every hour, a rounding error considering the total value of maritime trade, so is in reality nothing the system could not adapt to."⁵⁰ Hence, at this time African Piracy does not constitute a significant threat to maritime trade, nor does it pose a credible threat to U.S. vital interests despite the media coverage sensationalizing such incidents. Therefore, military action utilizing kinetic strikes against land targets which may risk second and third order effects potentially escalating regional conflict does not appear to be prudent. Taking this into consideration recommendations for the U.S. Navy policy should include operations focusing on prevention, counterpiracy, and prosecution. A brief discussion of each is provided.

Piracy Prevention. Traditionally counterpiracy efforts have focused on thwarting these activities at sea. Unfortunately, this is a generally ineffective strategy given piracy is merely an outgrowth of a country's land based malaise. In addition, international efforts to reduce piracy appear to have focused on a punishment based approach (e.g., capture and prosecute) toward the pirates themselves. Critics commonly argue that any cost benefit analysis for patrolling 356,000 km of African coastline with Navy warships in search of teenage pirates in skiffs would be excessively costly, ineffective and ludicrous. An effective counterpiracy response needs to address both the root cause of the problem as well as its symptoms.⁵¹ Counterpiracy efforts need to provide a balanced economic and behavioral approach of reward and punishment to shape both a country

and its citizen's behavior. The U.S. can provide a critical leadership role to help curtail piracy on the African continent. Recently AFRICOM expanded its security assistance training to regional maritime security forces including Djibouti, Yemen, Mozambique, and Tanzania.⁵² Extending this training to include those countries and regions that pose the highest risk of piracy especially in the Northwest (i.e., Cote d'Ivoire, Guinea, Guinea Bissau, Liberia, and Nigeria) and Eastern (i.e., Somalia) regions of Africa would be extremely beneficial.

Counterpiracy. Given the limited naval resources available to combat piracy, and millions of square miles of ocean bordering Africa, it is critical Commanders optimize the use of all naval forces by concentrating efforts in those areas that pose the greatest risk of piratical activity. The U.S. can assist in this role by providing a leadership role in organizing multinational task forces and providing coordination through our extensive command and control capabilities. For example, the U.S. should continue to conduct multinational counterpiracy operations (CTF-151), but again consider expanding present area of operations to include the high risk Northwest region (e.g., Cote d'Ivoire) to help deter the increasing trends and levels of piratical activities observed in these geographical hot spots. In addition, as noted earlier, a primary enabler of piracy are safe havens. Hence, a major priority should be placed on denying pirates land bases where they can organize, plan and hide.⁵³ This is not however, a Navy mission, but one more suitable for the army or law enforcement. In Somalia for example, the Hoboyo-Haradhere cartel operating out of El-Huur and El-Gaan is one of the largest gangs (>100 skiffs), and there are at least a half dozen other pirate gangs operating from various Somalia seaports, including Eyl, Garard, Bosasso, Ras Asir, Alula Cape and

Chismayu.⁵⁴ Currently the African Union (AU) is providing security and peacekeeping operations in Somalia under UN mandate with a military presence of approximately 6,000 troops. Neighboring land based troops such as these can more effectively eradicate piracy by eliminating their safe havens than a fleet of U.S. vessels patrolling millions of square miles of ocean.

Prosecuting Pirates. Perhaps the greatest challenge of counterpiracy is prosecuting the individuals who are caught. Prosecution is often complicated when suspects come from failed states that lack central governance, where there is often nobody to take them into custody. While Kenya has undertaken prosecuting African piracy cases with economic support from several external benefactors including the United Nations Office of Drugs and Crime, its court system has quickly become inundated. Recently Kenya announced that it will no longer continue to prosecute pirates outside its territorial waters unless it receives additional international funding.⁵⁵ Most recently the U.S. has begun trying pirates, and has convicted its first pirates in nearly two centuries in both New York and Virginia federal Courts.⁵⁶

Conclusion

While the media continues to garner international attention regarding the impending piracy crisis off the coast of Africa, it is important to remember that African piracy does not currently pose a threat to vital U.S. national interests. The majority of all commercial trade through the pirated waters of Africa is intended for Asia. As Morgenthau warned, secondary national interests should not be misconstrued as vital interests merely due to publicity. African piracy is a secondary interest for the United States, and merits a proportional response to help contain its effects on international

trade and help maintain regional stability. Hence, while it is important for the U.S. to help combat piracy and prevent such behaviors from escalating in the region, this is inherently an international problem that calls for an international solution. Findings from this study suggest the Northern and Southern African coasts do not appear to be a high risk for future piracy, while Eastern Africa remains a high threat area primarily due to Somalia. On the opposite coast, Western Africa will likely continue to experience some degree of piracy primarily in Cameroon and Democratic Republic of Congo, but at a manageable level consistent with current trends. However, the Northwestern region of the continent appears to pose the highest risk for piracy, including the countries of Cote d'Ivoire, Guinea, and Nigeria. The U.S. Navy's continued support of counter piracy operations and prosecution efforts, while simultaneously promoting the development of small but effective maritime security forces can help mitigate the risks of African piracy increasing and becoming a regional security situation.

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¹¹ Data used to create this Table was collected from (a) International Maritime Bureau, *Piracy and Armed Robbery against Ships Report: Report for the Period 1 January–31 December 2010*; (b) Small Arms Survey, (c) Central Intelligence Agency fact book, and (d) Population Reference Bureau. Specific sources are referenced throughout the manuscript when each risk factor is discussed.

¹² The first column in Table 1 shows the risk factor (i.e., Direct Access, Moderate Access, or Limited Access) for each country based on their geographical location and proximity to international shipping routes.

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¹⁸ No assessment for the nation of Western Sahara was provided given Morocco annexed the territory in the late 1970's. However, the land has experienced guerilla warfare since that time. Given U.N. sponsored talks have stalled between the government of Morocco and the Polisario Front contesting its sovereignty,¹⁸ for the purposes of this paper Western Sahara will be assessed as being an independent state, and rated as "critical".

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³⁵ Lesley A. Warner, "Pieces of Eight: An Appraisal of U.S. Counterpiracy Options in the Horn of Africa." *Naval War College Review*, 63, no. 2 (2010): 61-87.

³⁶ Peter Chalk, "Piracy off the Horn of Africa: Scope, Dimensions, Causes and Responses," *The Brown Journal of World Affairs*, 26, no. 2 (2010): 89-108.

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